CHAPTER 21

CIVIL FUNCTIONS OF THE DEPARTMENT OF THE ARMY

"We must now look forward to the future needs of the Nation…. Protecting investments, developing and marshalling resources to enhance trade and economic growth and helping others (for example in toxic and nuclear waste clean-up) through planning and engineering management, are important components of a …strong and responsive program that promotes economic growth and protects the environment, thereby enhancing the quality of life for all our citizens and future generations."

Dr. Joseph W. Westphal
Assistant Secretary of the Army (Civil Works)

INTRODUCTION

A number of activities traditionally carried out by the Department of the Army are commonly referred to as Civil Functions. These include the Civil Works Program of the U. S. Army Corps of Engineers addressed by Dr. Westphal in his June 1998 testimony before Congress; engineering and support to non-Defense Federal, State, and local agencies; Arlington National Cemetery; Soldiers' and Airmen's Home National Cemetery; the Panama Canal Commission; and the foreign activities of the Corps of Engineers not exclusively in support of U. S. forces overseas.

A variety of funding sources finance these activities. For example, the financial and personnel resources associated with the Civil Works Program are principally authorized and funded under the biennial Water Resources Development Acts and the annual Energy and Water Development Appropriations Acts, respectively. Contributions from State and local government project sponsors are required and help fund Civil Works activities. Army Corps of Engineers support to other, non-Defense agencies is reimbursed by those agencies. Moreover, congressional committees like the Subcommittee on Water Resources of the House Transportation and Infrastructure Committee (for the Civil Works Program) and the Subcommittee on Compensation, Pension, Insurance and Memorial Affairs of the House Committee on Veterans Affairs (for Arlington National Cemetery) provide legislative oversight. Although they differ from other Army programs in financing and oversight, the Civil Functions are an integral part of the overall mission of the Army and the service it provides to the Nation.

The Civil Functions complement and augment the Army's warfighting competencies, providing the capability to respond to a variety of situations across the spectrum of conflict. They provide a valuable tool with which to support the National Security Strategy by maintaining a trained and ready engineer force, sustained at a world-class level of expertise, at minimum expense to the Department of Defense military budget or personnel allocations. This force is familiar with the Army culture and responsive to the chain of command. Skills developed in managing large, complex projects transfer to most tactical engineering-related operations. As a byproduct, the Civil Functions provide Army Engineer officers with valuable training — available nowhere else — in contracting and managing large projects.

LEADERSHIP AND ORGANIZATION

Through specific statutory provisions, General Orders from the Secretary of the Army (SA), and internal Department of the Army regulation, the Assistant Secretary of the Army (Civil Works) (ASA[CW]) has been assigned responsibilities for Civil Functions. The ASA(CW) reports directly to the SA.

Congress established the position of the ASA(CW) in *Section 211 of the Flood Control Act of 1970, Public Law (P. L.) 91-611*, and reaffirmed it in *Section 501 of the Goldwater-Nichols Department of Defense Reorganization Act of 1986, P. L. 99-433*. The SA relies on the ASA(CW) to direct and supervise the Civil Works Program of the Army Corps of Engineers. Reporting to the ASA(CW) on the Civil Works Program are the Commanding General, U.S. Army Corps of Engineers, and the Director of Civil Works. The *Goldwater-Nichols Department of Defense Reorganization Acct of 1986* specifies that the Assistant Secretary's duties include overall supervision of the functions of the DA relating to programs for conservation and development of national water resources, including flood control, navigation, shore protection and related purposes.

The bulk of the Army's Civil Functions are executed by the U.S. Army Corps of Engineers, a major command consisting of about 37,000 people which also plans and builds facilities for the Army, Air Force, and other DOD agencies. The Corps is commanded by the Chief of Engineers, who holds unusual positions as both an Army Staff officer and a MACOM commander. Under the Chief's command are 8 divisions, four research laboratories, two engineer centers, and one MTOE battalion—the 249th Engineer Battalion (Prime Power). Under the divisions there currently are 41 districts, 38 of which are within the United States.

Division and district boundaries for the Civil Works Program within the CONUS generally follow watersheds and drainage basins, as shown in Figure 21-1. This distinction is reflective of the water resources mission of the Corps of Engineers. Boundaries for military construction districts follow state or other political boundaries, as shown in Figure 21-2**.** The Corps also includes a number of overseas offices with missions in construction in support of U. S. Forces, assistance to the host country, and support to other U.S. agencies overseas. The Pacific Ocean Division, headquartered in Honolulu, Hawaii, includes subordinate districts in Alaska, Japan and Korea; while the North Atlantic Division includes Europe District as well as stateside districts in New England, New York, Philadelphia, Baltimore and Norfolk.

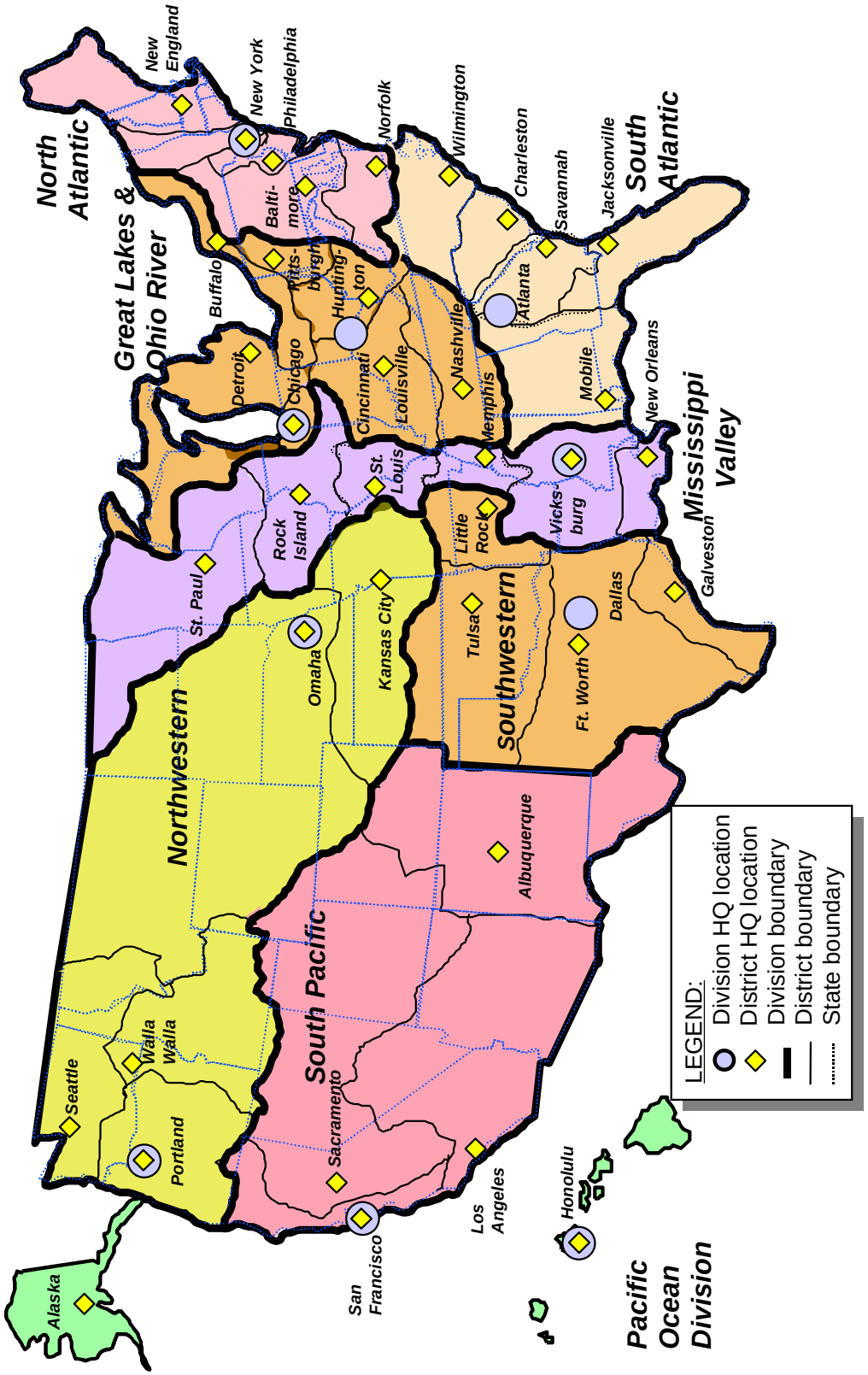
Civil Works Divisions & Districts
North Atlantic
New England
New York
Philadelphia
Great Lakes & Ohio River
Buffalo
Detroit
Chicago
Baltimore
Pittsburgh
Huntington
Cincinnati
Louisville
Norfolk
Wilmington
Nashville
Memphis
Charleston
Savannah
Atlanta
Jacksonville
South Atlantic
Mobile
New Orleans
Mississippi Valley
Vicksburg
Little Rock
St. Louis
Rock Island
St. Paul
Omaha
Kansas City
Tulsa
Dallas
Ft. Worth
Galveston
Southwestern
Northwestern
Albuquerque
South Pacific
Seattle
Walla Walla
Portland
Sacramento
San Francisco
Los Angeles
Honolulu
Alaska
Pacific Ocean Division
LEGEND:
Division HQ location
District HQ location
Division boundary
District boundary
State boundary

Figure 21-1

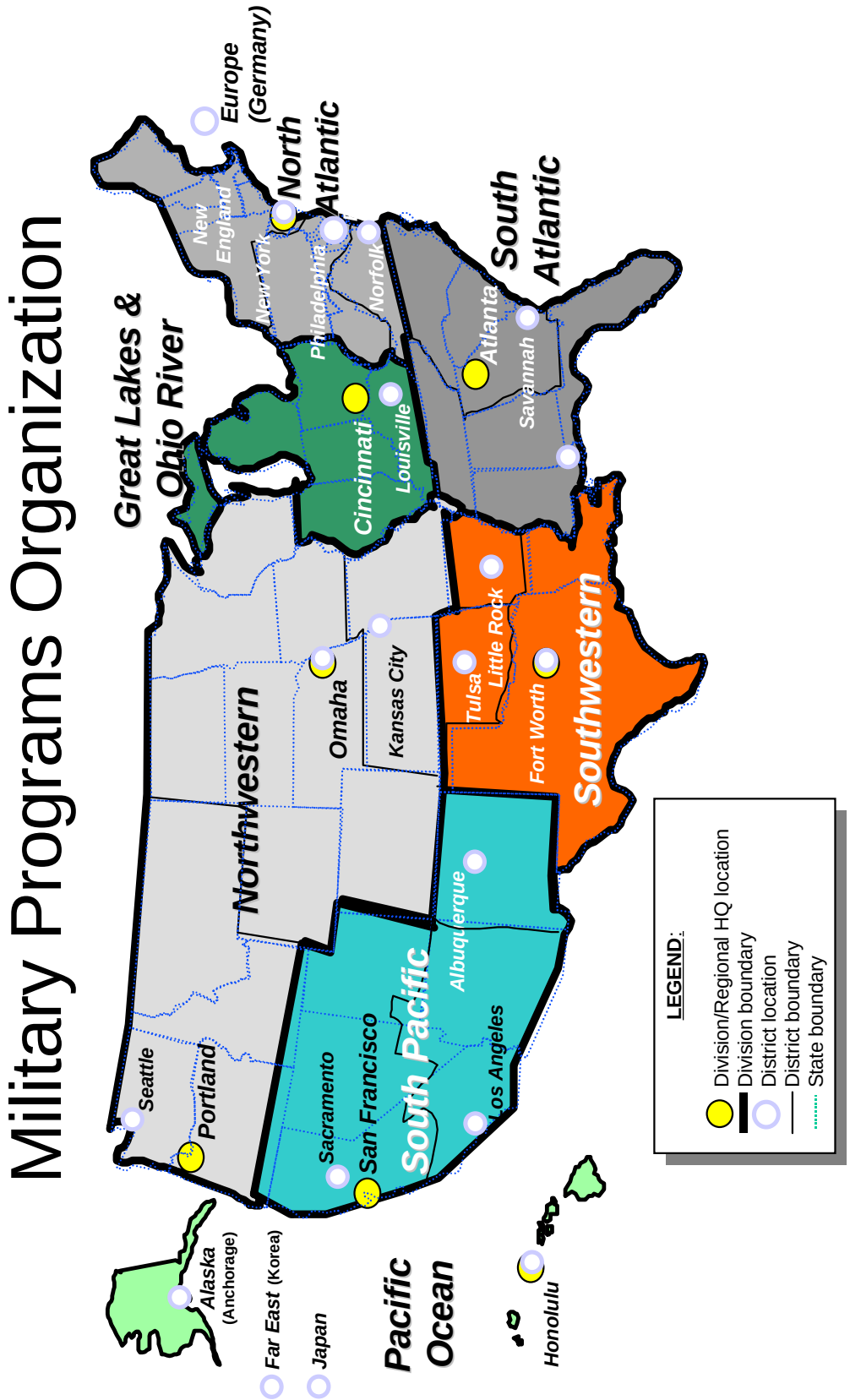
Military Programs Organization
Great Lakes & Ohio River
Europe (Germany)
North Atlantic
South Atlantic
Northwestern
South Pacific
Southwestern
New England
New York
Philadelphia
Norfolk
Atlanta
Savannah
Cincinnati
Louisville
Omaha
Kansas City
Tulsa
Little Rock
Fort Worth
Albuquerque
Seattle
Portland
Sacramento
San Francisco
Los Angeles
Alaska (Anchorage)
Far East (Korea)
Japan
Pacific Ocean
Honolulu
LEGEND:
Division/Regional HQ location
Division boundary
District location
District boundary
State boundary

Figure 21-2

The Transatlantic Programs Center, in Winchester, Virginia, oversees most Corps of Engineers activities in Africa, and the Middle East. In addition, several CONUS-based districts carry out overseas missions, such as Mobile District's support of USSOUTHCOM.

The private sector is an essential element of the Engineer team. The Corps employs private architectural, engineering, and construction firms for a high percentage of its design and all of its construction work. The partnership between the Corps and the private sector represents an immediate force multiplier of several hundred thousand architects, engineers, and builders, ready to support the Nation in times of emergency.

CIVIL WORKS PROGRAM

Overview.

The Civil Works Program provides for nationwide resources development and management, including the planning, design, construction, rehabilitation, operation and maintenance of flood control, navigation, environmental restoration, and multiple-purpose water resource projects. These often include hydroelectric power, water supply, recreation, and natural and cultural resource management on approximately 12 million acres of land and water. Replacement value of these projects is estimated at over $150 billion.

In addition to this direct Federal investment program, the Civil Works Program includes an important regulatory mission in which the Corps of Engineers regulates construction in navigable waters under the *Rivers and Harbors Appropriation Act of 1899*. The Corps also regulates the deposition of dredged and fill material in waters of the United States, including wetlands, under the *Clean Water Act*. The Civil Works Program also includes flood fighting, rescue operations, repair and restoration of flood control works. Other related emergency flood control work and recovery operations, all performed under the Corps' own authority as specified in *P. L. 84-99* and the Federal Response Plan in coordination with the Federal Emergency Management Agency (FEMA) are part of the Civil Works Program.

The Civil Works Program receives principal funding through the annual Energy and Water Development Appropriations Acts. The program also receives funding from non-Federal project sponsors who share in project costs according to formulas established by Congress in *P. L. 99-662*, the *Water Resources Development Act of 1986*, and subsequent water project authorization acts. Figure 21-3 shows Civil Works Program FY99 funding totaling $4.5 billion, identified by funding sources. Of this amount, $140 million is appropriated by Congress for the Formerly Utilized Sites Remedial Action Program (FUSRAP). This continues the policy, begun in FY98, of placing program administration and execution responsibilities for the FUSRAP in the Civil Works Program of the Corps of Engineers. The safe, timely cleanup of these Department of Energy facilities is a high priority.

Economic Infrastructure.

The Corps of Engineers traditionally has been a major contributor to the development, construction, and maintenance of a sound water resources infrastructure. Commercial navigation and flood control are long-standing missions of the Civil Works Program. The navigation function includes improvement and maintenance of harbors

FISCAL YEAR 1999

SOURCES OF FUNDING FOR CIVIL WORKS PROGRAM

Energy and Water Development Appropriations Accounts:	**$ Millions**
General Investigations (Potential Project Studies)	162
Construction, General (Note 1)	1,465
Operation and Maintenance, General (Notes 2 & 3)	1,753
Flood Control, Mississippi River and Tributaries (Note 4)	324
Regulatory Program (Waterway/wetland Protection)	106
Flood Control and Coastal Emergencies	0
General Expenses	148
Formerly Utilized Sites Remedial Action Program	140
Sub Total: Energy and Water Development Accounts	**4,097**
Contributions from Non-Federal Sponsors	**271**
Bonneville Power Administration	**106**
Coastal Wetlands Restoration Trust Fund	**10**
Permanent Appropriations	**18**
Total Funding: Civil Works Program	**4,502**

Notes:
1. Includes $73M from Inland Waterway Trust Fund and $2M from Harbor Maintenance Trust Fund
2. Includes $543M from Harbor Maintenance Trust Fund and $36M from Recreation User Fee Receipts
3. Includes $100M from Emergency Supplemental Appropriation
4. Includes $2.5M from Emergency Supplemental Appropriation

Figure 21-3

handling all of the Nation's seaborne commerce. With funds from the Harbor Maintenance Trust Fund, the Corps maintains navigability in 299 deep draft harbors and also maintains more than 600 smaller harbors. With more than 15 million American jobs dependent on U.S. import and export trade, the Nation's commercial ports are vital to the economic security of the United States.

The Corps has built an intracoastal and inland commercial waterway network of 12,000 miles and over 200 locks and dams. Major segments of this network include these waterways: Lower Mississippi River (1,015 miles); Upper Mississippi River (936 miles); Ohio River (981 miles); Tennessee River (785 miles); Missouri River (735 miles); Arkansas and White River (706 miles); Columbia River System (468 miles); South Atlantic Coast (1,111 miles); Gulf Intracoastal Waterway (GIWW)-West (1,501 miles); and GIWW-East (431 miles). Major improvements to inland waterway facilities are financed in part by the Inland Waterway Trust Fund. More than 600 million tons of commerce are moved every year on these waterways. Maintaining the system of ports and inland waterways involves removing more than 300 million cubic yards of dredged material each year.

The Nation's $38.5 billion investment in flood control (1928 through FY 1997) has prevented over $387 billion in flood damages — a return of more than ten dollars in flood damage reduction for each dollar invested. Civil Works projects seek to prevent flooding and its related damages with structural measures such as reservoirs, levees, improved channels, and floodwalls. Nonstructural measures, such as advice and encouragement for local zoning regulations, flood proofing of individual homes, and setting aside land in the floodplain as open space also contribute to this mission. Flood control efforts range from small, local protection projects to large lakes and dams. Today, 383 dams and reservoirs are maintained and operated by the Corps for the purpose of flood control. Since passage of the *Water Resources Development Act of 1986*, most flood control projects have been constructed as joint ventures between the Federal government and non-Federal sponsors. These projects, once built, are operated and maintained by the sponsor.

The Corps operates 75 power plants, representing almost one fourth of the Nation's hydroelectric capacity or three percent of the Nation's total generating capacity. This makes the Corps of Engineers the Nation's fourth largest electric utility. Dams built by the Corps provide water storage for drinking water, irrigation, and fish and wildlife habitat. Additionally, 456 of the flood control dams and reservoirs and multiple purpose power projects mentioned above (mostly lakes) are developed for recreational use. These projects accommodate nearly 400 million visits a year. The Corps estimates that 25 million Americans (one in ten) visit a Civil Works project at least once a year. Supporting visitors to these recreation areas generates 600,000 jobs. For many citizens, the Corps rangers at the recreation sites will represent their only contact with the Department of the Army. The Army is exploring ways to take advantage of these visits to Army Engineer facilities to inform the public about the Army.

The transportation infrastructure developed in the Civil Works Program plays a role in national defense. Ports and waterways serve as a vital logistics link when large volumes of materiel and personnel must be moved around the country and around the world. Practically all the heavy equipment and supplies bound for operation DESERT SHIELD and DESERT STORM moved by ship through ports maintained by the Civil Works Program. The Corps works with the Military Traffic Management Command (MTMC) and the local port authorities to ensure that ports are ready when needed. Waterways built and operated and maintained by the Army Corps of Engineers similarly have direct military

uses for strategic mobility. Units of the Texas, Oklahoma, and Arkansas National Guard have conducted successful movements over the Arkansas, Mississippi, and Illinois Rivers to their summer training sites, and the 101st Airborne Division (AA) conducts annual movements by waterway from Ft. Campbell, Kentucky, to Louisiana. This saves thousands of dollars from the cost of other modes of transportation. Corps of Engineers flood control projects also plays a role in force projection by protecting key highway and railway links. Thus, through activities as diverse as facilitating the movement of materiel to protecting vital infrastructure, the Civil Works Program contributes to National Security.

The Environment.

The Civil Works Program makes important contributions toward meeting the Nation's environmental goals by constructing projects for restoration and protection of ecosystem functions and values. In addition, the Corps provides stewardship for Corps-administered lands, includes appropriate mitigation in the design of all its projects, protects important aquatic resources such as wetlands through its regulatory program, and ensures environmental compliance at Civil Works project sites. Much of this work proceeds in partnership with other Federal and state agencies, as well as local communities. Some work may involve federally recognized American Indian Tribes or Alaskan Natives.

Restoration. Ecosystem restoration is a primary project purpose, along with flood damage prevention and navigation. Ecosystem restoration is accomplished through specifically authorized projects as well as through three programmatic authorities for small projects. Under *Section 1135 of the Water Resources Development Act of 1986, P. L. 99-662*, the Corps is authorized to modify projects constructed by the Corps in the interest of improvement of the environment. Section 1135 also authorizes the Corps to accomplish ecosystem restoration when the original Corps project contributed to environmental loss. Section 204 of the *Water Resources Development Act of 1992*, provided authority for beneficial uses of dredged material. This authority allows the Corps to utilize material from the dredging of authorized Corps navigation projects for ecosystem restoration projects. The third and newest authority is Section 206 of the *Water Resources Development Act of 1996*. This provision established a program for Aquatic Ecosystem Restoration under which small projects may be constructed and no link to an existing Corps' project is required.

Working toward a national goal of "no net loss of wetlands," the Civil Works Program is undertaking projects to restore existing wetlands and to create new ones. In one of the largest environmental restoration and protection projects ever undertaken, the Departments of the Army and the Interior are cooperating with the State of Florida to restore the physical form, functions, and hydrologic regime of the Everglades in South Central Florida, with funds provided by all three parties.

Legislation passed in 1990 established environmental restoration and protection as one of the primary missions in the planning, design, construction, operation and maintenance of water resources projects — along with navigation and flood control. This new direction has allowed the Corps to expand its traditional environmental activities and enhance or restore natural resources at Civil Works projects.

Regulatory Program. The regulatory program of the Corps of Engineers has a long history of protecting the Nation's waters. The *Rivers and Harbors Appropriation Act of 1899* authorizes the regulation, by permit, of construction and similar activities in navigable waters of the United States. A principal objective of this program is to ensure that unobstructed waterways are maintained for commercial and recreational users. Over time, the Corps "public interest review" has become an important part of the decision process used by Corps district commanders in granting, modifying or denying permit applications. This review involves the consideration and balancing of a number of interests besides navigation — among them aesthetics, conservation, economics, and general environmental factors.

The *1972 Clean Water Act* envisions the regulation, by permit, of dredge and fill activities in all waters of the United States, including wetlands. This Act expanded the Corps of Engineers' regulatory responsibilities beyond those contemplated in the *Rivers and Harbors Appropriations Act of 1899*. Also other environmental laws were enacted at about the same time that require Federal decision makers to consider and take responsibility for the environmental consequences of their actions. Today the regulatory program consolidates the public interest and environmental consequence reviews into a comprehensive evaluation process for decision making. The evaluation process promotes the balancing of environmental protection with responsible economic growth. This balancing is reflected in the program's goals: to protect the aquatic environment, render fair and reasonable decisions, and use efficient decision making procedures. The Corps regulatory program provides the public a valuable service—protection of the Nation's waters and wetlands.

Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended, authorizes the SA to issue permits for the transportation of dredged material for ocean disposal when the dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological system, or economic potentialities. The selection of disposal sites will be in accordance with criteria developed by the Administrator of EPA in consultation with the Secretary of the Army. The Administrator can prevent the issuance of a permit if he or she finds that the dumping of the material will result in an unacceptable adverse impact on municipal water supplies, shellfish beds, wildlife, fisheries or recreational areas.

Stewardship. The Corps of Engineers is steward for almost 12 million acres of land and water in 42 states. Conservation of forests, range wildlife habitat, fisheries, and soils involves multiple–use of resources and practice of sound ecosystem management principles. The Corps accomplishes this through a mix of its own management capabilities, partnerships with State and local governments, volunteers, and working agreements with a wide variety of interest groups.

Compliance. Compliance assessments are conducted by the Corps of Engineers at all of its projects on a five-year cycle through the Environmental Review Guide for Operations (ERGO) program. ERGO is a checklist containing over 70 Federal, state, and local environmental statutes and local requirements. Project and facility managers,

as well as external organizations, use ERGO to systematically locate and correct environmental deficiencies.

Environmental activities in the Civil Works Program are essential elements of the Army's Environmental Strategy now and for the 21st Century. People who learn their specialties in Civil missions that concern natural and cultural resources, water quality, flood plain management or hazardous waste management help the Army go "beyond compliance" to take on a leadership role in natural resources stewardship. Civil Works expertise helped the Army develop such tools as the Environmental Compliance Assessment System (ECAS) and Integrated Training Area Management (ITAM). The Civil Works Program is responsible for about half the Army's land holdings, and is familiar with balancing preservation of the natural environment with human use — a major issue facing the Army. This program is also the Army's reservoir of cultural resources expertise, which the Army has used on several priority missions.

Emergency Preparedness and Disaster Response.

The Army responds to the Nation's needs in the event of natural or man-made disasters and emergencies. Army programs provide public works and engineering assistance to protect human life, reduce suffering, and mitigate damage and threats to improved property. Response activities supplement state and local efforts.

Under *P. L. 84-99, as amended*, the Corps of Engineers may undertake a broad range of readiness and response activities to combat floods. These include disaster preparedness, advance measures to alleviate flood threats, flood fighting, rescue and emergency relief efforts during flood events, and rehabilitation of flood control and Federally authorized shore protection works which have been damaged by floods or coastal storms. The law also authorizes the Corps to provide emergency supplies of clean water to localities whose water source has been contaminated and assistance in supplying water to drought-affected areas. Further, the Corps is authorized to provide essential services to preserve life and protect property in flood-impacted areas, for up to 10 days, subsequent to a Governor's request for Federal assistance.

Under the *Stafford Act, P. L. 93-288, as amended*, the Corps may utilize its public works and engineering capabilities to support the Federal Emergency Management Agency (FEMA) and other Federal agencies in responding to disasters and emergencies of all kinds. The Corps participates in FEMA disaster recovery efforts by carrying out mission assignments within its areas of expertise. Activities performed under the *Stafford Act* usually are reimbursed by FEMA. Emergency responses usually involve coordination with other Federal agencies, supplemented when necessary with support from military elements as coordinated by the Director of Military Support, in support of state and local efforts. Corps of Engineers engineering and contracting efforts, however, often mean that troop units called on for emergency support can be returned to training sooner than would otherwise be possible.

Under the *Stafford Act*, FEMA has developed the Federal Response Plan, which calls on 28 Federal departments and agencies to execute coordinated disaster relief and recovery operations. Under this plan, the Corps of Engineers has been delegated the lead responsibility for public works and engineering missions.

As shown in Figure 21-3, no new FY 99 funding is provided for the Flood Control

and Coastal Emergencies (FCCE) Appropriations Account. The carryover of funds appropriated in the FY 97 Emergency Supplemental Appropriations Act thus far has been adequate for administration of the Disaster Preparedness and Emergency Response Programs during FY 99. The need for additional funding will be determined by future events requiring extraordinary flood-fighting or subsequent repair of damaged water management facilities and the balance of funds in the FCCE account.

In FY 97, the Corps responded to several natural disasters, including the Western floods of January, flooding in the Ohio and Mississippi River Basins in March, and the Upper Midwest floods of April 1997. The repair and rehabilitation of critical levees in California and other states was completed as the Corps of Engineers continued the restoration of flood protection to distressed communities throughout the Nation.

During FY 98, the Corps participated in the Federal relief efforts led by FEMA in New England as a result of the severe January 1998 ice storm. During the following month, the Corps responded to flooding in both California and Florida and continues to play a key role in Federal recovery and relief efforts in these states.

Research and Development.

Over the years the Civil Works Program has supported a very comprehensive and innovative research program encompassing a myriad of disciplines and aspects within the broad scope of the Civil Works Program charter. This Civil Works-supported research and testing has produced excellent results, which have made the Civil Works projects and associated operations and maintenance more cost-effective, innovative and safer.

The Corps operates four research laboratories and awards contracts to universities and others for a sizable portion of its program. The Topographic Engineering Center (TEC), at Fort Belvoir, Virginia, does state-of-the-art research in mapping and charting, including exploring applications for satellite ground positioning systems (used to position dredges when working on navigation channels), stand-off sensing (to check underwater channel conditions), and computer/satellite based terrain analyses. Using Geographic Information Systems, TEC currently is producing topographic products in support of operations in Bosnia, such as route reconnaissance maps, construction material estimates, and soil trafficability studies.

The Construction Engineering Research Laboratories (CERL), located near the University of Illinois at Champaign, Illinois, specializes in construction technologies, energy conservation, and environmental operations. CERL pioneered the research and technology to support construction techniques for many buildings, hardstands, roads, and other facilities in the Middle East.

The Cold Region Research and Engineering Laboratory (CRREL), in Hanover, New Hampshire, studies the effects of low temperature on materials, equipment, and engineer operations. This includes research on the effects of cold weather on tactical engineering. CRREL is providing cold weather construction and operation techniques for the Bosnia operation.

The Waterways Experiment Station (WES) is located in Vicksburg, Mississippi. As its name suggests, it specializes in water systems, but it also conducts research in soil and rock mechanics, earthquake engineering, coastal engineering, and weapons effects on structures.

Civil Works research and development provides the Corps, the Army, and the Nation with innovative engineering products, many of which have applications in both military and civilian infrastructure spheres. By creating products that improve the efficiency and competitiveness of the Nation's engineering and construction industry and providing more cost-effective ways to operate and maintain infrastructure, Civil Works research and development contributes to National Economic Security. The results of this Civil Works research have also benefited military programs and activities. In addition, Corps laboratories host hundreds of foreign visitors and engage in numerous joint international research projects. The contacts developed in this work, as is the case with many foreign activities, support the cause of democracy overseas.

SUPPORT TO OTHER GOVERNMENT AGENCIES

The Corps of Engineers provides engineering support to about 60 non-DOD Federal agencies, States, and local governments under the Support for Others program. Funds for this program are included in the appropriations of the agencies receiving support and reimbursed to the Army.

Corps support of other agency infrastructure programs includes designing and building space launch facilities for the National Aeronautics and Space Administration, managing embassy construction and security efforts around the world for the State Department and the United States Information Agency. Construction support is also provided for the Drug Enforcement Agency. The Corps also supports other Federal agencies in meeting important national environmental objectives, such as those of the Environmental Protection Agency Superfund and the Department of Energy cleanup at nuclear production facilities.

In FY 98, the monetary value of the construction effort managed by the Corps was about $800 million.

Federal agency requests for construction support in excess of $1,000,000 in FY 98 are shown in Figure 21-4.

PANAMA CANAL COMMISSION AND TREATY IMPLEMENTATION

The Department of the Army plays a unique role among the Services in the implementation of the *Panama Canal Treaties of 1977*. These treaties require the transfer of the Panama Canal to the Government of Panama and withdrawal of U. S. forces by December 31, 1999.

In 1989, the Deputy Secretary of Defense designated the Department of the Army as the DOD Executive Agent for all joint fiscal and logistics aspects of Panama Canal Treaty Implementation, with a focus primarily on treaty provisions dealing with military forces for canal protection and defense. The same year, the Secretary of Defense directed the Army to establish an Executive Agent organization to carry out treaty implementation responsibilities. This organization, the Treaty Implementation Plan Agency (TIPA), is under the supervision of the Deputy Under Secretary of the Army (International Affairs) DUSA[IA]).

The Secretary of Defense’s charter establishing TIPA specified several key responsibilities. These include the release of U.S. property under control of the Unified Commander to the Government of Panama. Further, these responsibilities include review of the Panama Canal Treaty Implementation Plan (PCTIP) which specifies the timetable for and Service responsibilities during the

CONSTRUCTION SUPPORT FOR NON-DOD FEDERAL AGENCIES

Agency	Construction Effort
Department of Agriculture	$ 1,838,000
Department of Commerce	2,507,000
Department of Energy	25,496,000
Environmental Protection Agency	372,610,000
Federal Emergency Management Agency	80,934,000
General Services Administration	5,133,000
Dept of Health and Human Services	1,529,000
Dept Housing and Urban Development	3,232,000
Department of the Interior	43,773,000
JFK Center for the Performing Arts	1,033,000
Department of Justice	124,244,000
Department of Transportation	14,997,000
Department of Treasury	3,083,000
Panama Canal Commission	3,648,000

Figure 21-4

force drawdown, oversight of major execution costs for DOD, compliance with national policy, treaties, and laws, and reporting progress to the Secretary of Defense.

In addition to the Executive Agent role for treaty implementation, the Secretary of the Army holds specific responsibilities regarding the operation and management of the Panama Canal itself. These include such functions as transferring property between agencies, establishing Panama Canal Commission (PCC) operating regulations, and overseeing the PCC employment, pay and retirement systems. The Secretary of Defense has also designated the SA to serve as the Secretary's representative to the PCC Supervisory Board, comprised of five U.S. and four Panamanian members. The Secretary of the Army has the authority to

direct the vote of the other U.S. members. When delegated by the SA, the Under Secretary of the Army will fulfill the functions assigned by the Secretary of Defense relating to the Panama Canal Commission. The ASA(CW) provides support. Although the Panama Canal Commission is financially self-sustaining, the Army is involved each year with the process to obtain congressional authorization for the Commission's general and administrative budget.

NATIONAL CEMETERIES

For over 125 years, Arlington National Cemetery (ANC) has served as a place of honor and recognition for the men and women who have served in the Nation's Armed Forces. It is the site of numerous important national ceremonies. The Soldiers' and Airmen's Home National Cemetery, located in Washington, D.C., also provides a final resting place for those with military service. The Army takes pride in exercising its assigned responsibilities for operation, maintenance, and improvement of these cemeteries.

The ASA(CW) provides program formulation and budget oversight to Arlington and Soldiers' and Airmen's Home National Cemeteries. The day-to-day activities of the cemeteries are the responsibility of the Commanding General, Military District of Washington, who executes these responsibilities through the Superintendent, ANC. The Corps of Engineers supports Arlington National Cemetery by providing planning, engineering and design, and construction management assistance for cemetery property and facilities.

The Army receives funds to operate these cemeteries in the Cemeterial Expenses, Army, appropriations account. These funds are included in the Departments of Veterans Affairs, Housing and Urban Development, and Independent Agencies Appropriations Act. The amount sought by the Administration and appropriated by Congress in FY 99 — $12 million — will provide for a continuation of the high standard of maintenance expected for these two important national cemeteries.

The development and improvement of the infrastructure at ANC was based on a master plan that originally was prepared in 1967. In 1997, a new master plan was completed and approved by the SA. That plan provides a vision of the cemetery's priorities and needs into the next century. The master plan identifies projects and policies to respond to the challenges confronting ANC. These challenges include an aging infrastructure, declining availability of space for initial interment, and preserving the dignity and serenity of ANC while accommodating over 4,000,000 visitors annually.

ENGINEER OVERSEAS ACTIVITIES

The Army Corps of Engineers conducts a broad range of foreign activities. Many are exclusively in support of U. S. forces overseas. All others are considered part of the Civil Functions of the Army. In coordination with the DUSA(IA), the ASA(CW) provides program direction to the foreign activities of the Corps of Engineers, except those which are exclusively in support of U. S. military forces overseas.

In FY 98, the Engineers supported U.S. foreign policy in 76 countries. Through the Africa Civil Action Program, assistance and support was provided to developing African nations to improve the construction expertise of their military engineers. In Central and South America, the Corps provided reimbursable engineering

and construction support required to control the production and trafficking of illicit narcotics through the Counter-Narcotics Program.

As the DOD Construction Agent in many parts of the world, the Corps provides reimbursable design and construction services under the Foreign Military Sales (FMS) Program. FMS assistance currently is being provided to 10 countries in Latin America and the Middle East, with a total project value of approximately $781 million. Working for the Defense Special Weapons Agency, the Corps is supporting the Cooperative Threat Reduction Programs with work in Russia, Belarus, and Ukraine. The work includes design and construction assistance for nuclear storage facilities and a chemical weapons destruction program. The current program is valued at approximately $500 million.

The Corps is also called upon frequently to provide support for U.S. Agencies overseas. For example, new embassies for the State Department were constructed in a number of republics in the former Soviet Union.

Goodwill generated by international work sometimes pays unexpected dividends. In the 1970's and 1980's, a team drawn largely from the Civil Works Program managed the construction of billions of dollars worth of military and transportation facilities in Saudi Arabia, all financed by the Saudi government. The trust developed between the Army and the Saudi government was vital in reaching agreements needed for DESERT SHIELD and DESERT STORM. The facilities themselves also played a key role. Troops and equipment moved through ports and airfields developed under the Corps program, and King Khalid Military City, near the Iraqi border, became a major staging center.

SUPPORT TO CINCS

Expertise in water resource development, flood control, waterway operations, dredging, coastal engineering, environmental stewardship, and disaster response supplement the skills maintained through the Army's military construction and installation support programs. This expertise is routinely called upon by the warfighting CINCs and by other DOD agencies and is supplied by the Corps of Engineers on a reimbursable basis.

When the Army goes to war, personnel involved in Civil Functions provide timely information to the battlefield. Corps of Engineers knowledge of beach dynamics—including the Sea State Prediction Models developed at the Waterways Experiment Station, Vicksburg, Mississippi—help determine the sites for shore landings. Corps expertise in soil mechanics determines the best routes for armored vehicles—often roads built using technologies developed in the Civil Works Program. Corps of Engineers experience gained from work on winter navigation helps the Army cross frozen rivers. And, commanders at all levels make use of topographic products and satellite-based navigation systems developed at the Topographic Engineering Center at Fort Belvoir, Virginia.

Soldiers and civilians that are assigned to Civil Functions are available to deploy with the Army, and have done so in support of operations in Grenada, Panama, Saudi Arabia, Somalia, Haiti, and Bosnia. They are key to evaluating and developing the infrastructure the force needs to enter and move about. For Operations DESERT SHIELD and DESERT STORM, more Civil

Works personnel volunteered for deployment than the mission required. Especially noteworthy are the Contingency Real Estate Support Teams (CRESTS) who can deploy within 24 hours to acquire the troop housing, work space, hardstands, and covered storage areas the entering force will need. Also worthy of note are the LOGCAP contractor personnel who deploy with the force under contracts worked out in peacetime.

Other examples of how civil capabilities can be used to support CINCs include:

- digital mapping and soil trafficability studies for Central Command in support of Operations DESERT SHIELD and DESERT STORM;
- post-conflict cleanup of Kuwait, reestablishing utilities, and supervising repair of roads, buildings, and airfields;
- water/flood level prediction modeling as Engineer soldiers bridged the Sava River in Bosnia;
- environmental and water resource assessments in Central and South America;
- river channel surveys in Bangladesh at the request of USARPAC;
- dam safety, disaster response, and water resource development;
- expertise for military-to-military contacts in European Command;
- archaeological support to the Army Central Identification Lab to help recover the remains of U.S. Servicemen in Southeast Asia; and
- coastal modeling to map optimum locations for logistics over-the-shore (LOTS) operations in the Persian Gulf, Somalia, and Haiti.

SUMMARY

The Army, through its Civil Functions, provides valuable services in maintaining and enhancing the economic and environmental health of the Nation. These services and significant training they support involve virtually no cost to the Department of Defense military budget. The financial and personnel resources associated with these functions are principally authorized and funded under the biennial Water Resources Development Acts and annual Energy and Water Development Appropriations Acts, respectively. Civil Functions continue to prove invaluable in furthering national security objectives.

REFERENCES

(1) Headquarters, Department of the Army, General Orders No. 10: *Assignment of Functions, Responsibilities, and Duties within the Army Secretariat,* 12 August 1997.

(2) Public Law 84-99, *Amendment of Flood Control Act of August 18, 1941(Emergency Flood Control Work).*

(3) Public Law 91-611, *Flood Control Act of 1970.*

(4) Public Law 93-288, *Disaster Relief Act of 1974* (also known as *the Stafford Act*).

(5) Public Law 99-433, *DOD Reorganization Act of 1986* (also known as *Goldwater-Nichols*).

(6) Public Law 99-662, *Water Resources Development Act of 1986.*

(7) Public Law 105-245, *Energy and Water Development Appropriations Act, 1999.*

(8) Public Law 105-277, Omnibus Consolidated and Emergency Supplemental Appropriations Act, 1999.